

24-port + 2 Fixed Gigabit Web-Managed Switch

24-port +



networks@work

USER'S MANUAL



COMPEX WEB-MANAGED SERIES

SXP2226WM

SXP2226WM
SXP2226WM
SXP2226WM
SXP2226WM

Manual number : U-0358-V1.1C

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This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Connect the computer into an outlet on a circuit different from that to which the receiver is connected.

Increase the separation between the computer and receiver.

Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC Compliance Statement: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Declaration of Conformity

Compex, Inc. declares the following:

Product Name: Compex 24-Port 10/100Mbps plus 2 1000Base-T Copper Ports with Web Management Switch

Model No: SXP2226WM conforms to the following Product Standards:

This device complies with the Electromagnetic Compatibility Directive (89/336/EEC) issued by the Commission of the European Community.

Electromagnetic Interference (Conduction and Radiation): EN 55022 (CISPR 22)

Electromagnetic Immunity: EN 55024 (IEC61000-4-2,3,4,5,6,8,11)

Power Line Harmonics: EN 61000-3-2 (IEC610000-3-2)

Power Line Flicker: EN 61000-3-3 (IEC610000-3-3)

Product Safety: EN 60950 (IEC60950)

Therefore, this product is in conformity with the following regional standards: FCC Class A — following the provisions of FCC Part 15 directive; CE Mark — following the provisions of the EC directive.

This Class A digital apparatus complies with Canadian ICES-003.

22nd November 2002












Shi Jia Xiang
R & D Manager

Technical Support Information

The warranty information and registration form are found in the Quick Install Guide.

For technical support, you may contact Compex or its subsidiaries. For your convenience, you may also seek technical assistance from the local distributor, or from the authorized dealer/reseller that you have purchased this product from. For technical support by email, write to support@compex.com.sg.

Refer to the table below for the nearest Technical Support Centers:

Technical Support Centers	
Contact the technical support center that services your location.	
U.S.A., Canada, Latin America and South America	
 Write	Compex, Inc. 4051 E. La Palma, Unit A Anaheim, CA 92807, USA
 Call	Tel: +1 (714) 630-7302 (8 a.m.-5 p.m. Pacific time)
 Fax	Tel: +1 (800) 279-8891 (Ext.122 Technical Support)
	Fax: +1 (714) 630-6521
	BBS: +1 (714) 630-2570 (24-hour access)
Europe	
 Write	ReadyLINK Networktechnology Gmbh Albert Einstein Straße 34/M21 63322 Rödermark, Germany
 Call	Tel: +49 (0) 6074 - 98017 (8 a.m.-5 p.m. local time)
 Fax	Fax: +49 (0) 6074 - 90668
	BBS: +49 (0) 6074 - 93974 (24-hour access)
	Support Email: readylink@compex.com.sg
Asia, Australia, New Zealand, Middle East and the rest of the World	
 Write	Compex Systems Pte Ltd 135, Joo Seng Road #08-01, PM Industrial Building Singapore 368363
 Call	Tel: (65) 6286-1805 (8 a.m.-5 p.m. local time)
 Fax	Tel: (65) 6286-2086 (Ext.199 Technical Support)
	Fax: (65) 6283-8337
	BBS: (65) 6282-8854 (24-hour access)
Internet access/	E-mail: support@compex.com.sg
Website:	FTPsite: ftp.compex.com.sg
	http://www.cpx.com or http://www.compex.com.sg

About This Document

The product described in this document, Compex Web Management Switch Series, Compex SXP2226WM is a licensed product of Compex Systems Pte Ltd. This document contains instructions for installing, configuring and using Compex SXP2226WM. It also gives an overview of the key applications and the networking concepts with respect to the product.

This documentation is for both Network Administrators and the end user who possesses some basic knowledge in the networking structure and protocols.

It makes a few assumptions that the host computer has already been installed with TCP/IP and already up & running and accessing the Internet. Procedures for Windows 98/2000/XP operating systems are included in this document. However, for other operating system, you may need to refer to your operating system's documentation for networking.

How to Use this Document

The document is written in such a way that you as a user will find it convenient to find specific information pertaining to the product. It comprises of chapters that explain in details on the installation and configuration of Compex SXP2226WM.

Firmware

This manual is written based on Firmware version 1.01.

Conventions

In this document, special conventions are used to help and present the information clearly. The Compex 24-Port 10/100/1000Mbps plus 2 1000Base-T Copper Ports with Web Management Switch SXP2226WM is often referred to as Compex SXP2226WM in this document. Below is a list of conventions used throughout.



NOTE

This section will consist of important features or instructions



CAUTION

This section concerns risk of injury, system damage or loss of data



WARNING

This section concerns risk of severe injury

References on Menu Command, Push Button, Radio Button, LED and Label appear in **Bold**. For example, "Click on the **OK**" button"

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1.1 Introduction

The Web-Managed Switch SXP2226WM is a 24-Port Dual Speed Web-Managed Switch supporting Full/Half Duplex Transmission and N-Way Auto-Negotiation. It has two fixed additional copper gigabit ports to allow high performance switching and is designed with Full Bandwidth Non-Blocking switching architecture of Ethernet frames. SXP2226WM is designed with advanced features such as Virtual LAN capability, Port Trunking functionality as well as Force Mode ability. These advanced features can be easily configured via a web-based management interface. In addition, the web-based management interface allows the aging control of the Media Access Control (MAC) table as well as performing Host Search based on Internet Protocol (IP) or MAC addresses. This controllability coupled with the gigabit ports allows SXP2226WM to improve the network performance.

1.2 Features and Benefits

Compex SXP2226WM is designed with the following features:

- **Industry-leading Tri-Speed Copper Gigabit Ethernet**

Integrated with a 24-port 10/100Mbps plus 2-port 1000Mbps Fast Ethernet Switch, Compex SXP2226WM provides an immediate solution for users on private LAN switching. With the auto-crossover mechanism, hubs or switches can be cascaded to Compex SXP2226WM easily to support more users.

- **Web-based Management**

Compex SXP2226WM is embedded with a HTTP server, facilitating a simple configuration process with a user-friendly web-based interface. Simply connect Compex SXP2226WM to a workstation and configure the switch for your network via a Java-enabled web browser.

Through the management interface, you can also change the transmission mode of all ports on Compex SXP2226WM switch. This means that you can change the operating mode of any port to 10 Base-T half duplex, 10 Base-T full duplex, 100 Base-TX half duplex, 100 Base-TX full duplex or N-way Auto-negotiation at any time.

- **Virtual LAN (VLAN)**

Compex SXP2226WM can support up to 24 port-based VLANs and static configuration of 802.1Q VLAN. It allows network administrator to separate the network into a few segments by defining which port belong to which VLAN segment. This can effectively control broadcast and multi-cast packet flooding the network. This not only improves the network performance, but also provides security between workgroups.

- **Port Mirroring**

This function allows you to set up a ‘mirror’ port on any specified port/s or VLAN, such that you can monitor the traffics of the monitored port/s or VLAN without intervening them. In effect, the traffics on the monitored port/s or VLAN are replicated on the mirror port, such that you can use a protocol analyzer to analyze the traffic for specific problem.

- **10Base-T/100Base-TX/1000Base-T N-Way Auto-Negotiation**

In Compex SXP2226WM, all ports use the N-Way Auto-Negotiation mechanism to detect the speed of the attached network adapter. This feature gives users the freedom and convenience of connecting the switch to a 10Base-T, 100Base-TX or 1000Base-T network without further manual configuration and setup.

- **10/100/1000 Mbps Switching function**

A cost-effective 1000Mbps, 100Mbps and 10Mbps switching function in a single unit. Compex SXP2226WM divides a network into smaller shared groups, eliminating unnecessary traffic, multiplying available bandwidth, and relieving congestion on server paths.

- **10/100/1000 Mbps Integration**

24 high-speed ports permit Ethernet workgroups to communicate with Fast Ethernet users in a single integrated network, and share servers connected to the dedicated 1000Mbps ports. Port expansion is easy by connecting several switches and hubs together through uplink port.

• **Linking Up 10Base-T and 100Base-TX Technology**

One-time migration from 10Base-T to 100Base-TX technology can be very costly. Compex SXP2226WM addresses this problem by allowing existing 10Base-T networks to communicate with 100Base-TX networks. Performance does not degrade as each 10Base-T/100Base-TX segment continues to operate at its own speed. Enterprise networks can thus be progressively upgraded and older segments gradually phased out without sacrificing interconnectivity or performance.

1.3 Panel Views

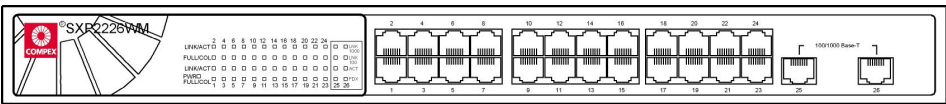


Figure 1.3a Front Panel View of Compex SXP2226WM

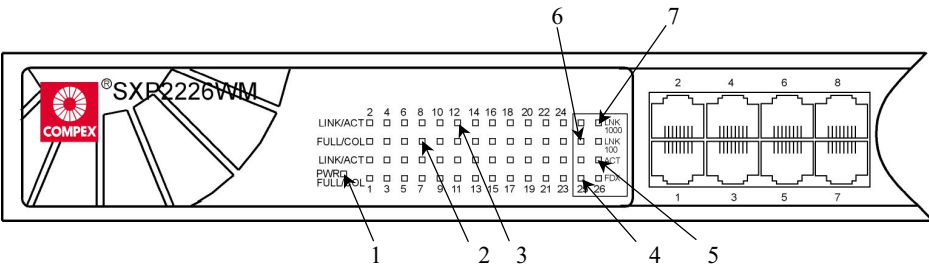


Figure 1.3b Front Panel View of Compex SXP2226WM (Section #1)

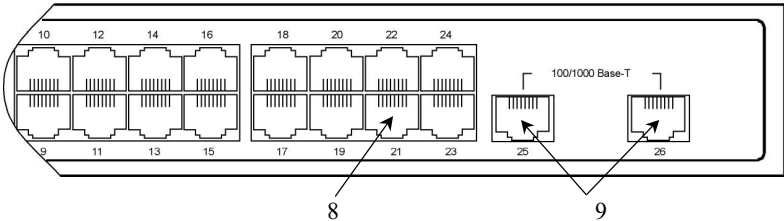


Figure 1.3c Front Panel View of Compex SXP2226WM (Section #2)

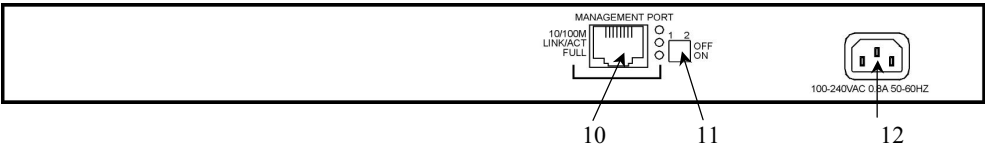


Figure 1.3d Back Panel View of Compex SXP2226WM

1.4

Panel Features

	Features	Status and Indication	
1	PWR LED	Steady Green	Power is supplied to the switch.
		Off	No power is supplied to the switch.
2	FDX/COL LEDs (For Port 1 to 24)	Steady Orange	The port is operating in Full Duplex mode.
		Off	The port is operating in Half Duplex mode.
		Blinking Orange	Collision occurs in the network segment of the respective port.
3	LINK/ACT LEDs (For Port 1 to 24)	Steady Green	Individual port is connected at 10Mbps.
		Blinking Green	The port is transmitting or receiving data in 10Mbps.
		Off	There is no connection established in the network.
4	FDX LEDs (For Port 25 and 26)	Steady Orange	The port is operating in Full Duplex mode.
		Off	The port is operating in Half Duplex mode.
5	ACT LEDs (For Port 25 and 26)	Blinking Orange	Activities are present in the network.
		Off	No activity is present in the network.

	Features	Status and Indication	
6	LNK 100 LEDs (For Port 25 and 26)	Steady Green	Individual port is connected at 100Mbps.
		Off	<ul style="list-style-type: none">• No network connection is established to the device• The network is running at 1000Mbps.
7	LNK 1000 LEDs (For Port 25 and 26)	Steady Green	Individual port is connected at 1000Mbps.
		Off	<ul style="list-style-type: none">• No network is established to the device• The network is running at 100Mbps.
8	24 RJ-45 Ports (For Port 1 to 24)	<ul style="list-style-type: none">• 10Base-T• 100Base-TX• Auto-negotiation	
9	2 RJ-45 Ports (For Port 25 and 26)	<ul style="list-style-type: none">• 100Base-TX• 1000Base-T• Auto-negotiation	
10	Management Port	Connection to a Web-browser via RJ45 UTP cable	
11	DIP Switch	Toggle the DIP Switch for different function. Please refer to Chapter 9 “Clearing Password and Restoring Default IP Address” and Chapter 10 “Upgrading New Firmware Configuration” for more details.	
12	Power Socket	Power input (range 100VAC to 240VAC)	

1.5 Specifications

•	Industry Standards	Complies with <ul style="list-style-type: none">• IEEE 802.3 10Base-T• IEEE 802.3u 100Base-TX• IEEE 802.3ab 1000Base-T• IEEE 802.3x Flow Control• IEEE 802.1Q VLAN• IEEE 802.1p Priority Queuing• IEEE 802.1ad Link Aggregation
•	Safety Certifications	<ul style="list-style-type: none">• CE Mark• FCC Part 15 Class A• Gost• C-Tick• UL
•	Interface	<ul style="list-style-type: none">• 24-Port auto-negotiating• 10Base-T configured with Auto MDIX• 100Base-TX• 2 auto-negotiating 100Base-TX/1000Base-T ports configured with Auto MDIX
•	Speed	<ul style="list-style-type: none">• 10Mbps• 100Mbps• 1000Mbps
•	LED Indicators	<ul style="list-style-type: none">• Link/Act• FDX/COL• PWR• LNK 1000• LNK 100• ACT• FDX
•	Management	Web-based Management Interface
•	Transmission Mode	<ul style="list-style-type: none">• Full Duplex• Half Duplex
•	Switching Method	Store and Forward

•	MAC Address Table	8K
•	Switching Buffer	6Mbits
•	Bandwidth	9.6Gbps
•	Virtual LAN	Port-based VLAN
•	Port Trunking	Yes
•	Port Mirroring	Yes
•	Priority Queuing	4 levels
•	Environmental Requirements	Operating temperature: 0°C to 45°C Storage temperature: -20°C to 70°C Operating humidity: 10% to 90% RH Storage humidity: 5% to 90% RH RH = Relative Humidity
•	Physical Dimension	440mm x 160mm x 43mm (L x B x H)

Chapter 2 Getting Started

This chapter outlines the basic requirement for any installation and configuration of Compex SXP2226WM.

2.1 Packaging Content

Thank you for purchasing the Compex Web Managed Switch SXP2226WM. You will find the following items in the package:

- 1 x Compex SXP2226WM unit
- 1 x Power Cord
- 2 x brackets
- 8 x screws
- 1 x Quick Install Guide with Warranty Card
- 1 x CD-ROM (Web browser, Acrobat Reader, User's Manual)

2.2 Setup Considerations

Prepare checklist before you start:

- Check your Local Area Network configurations. Check if the network has Static IP addressing or dynamic IP assignment.
- Check whether any of the browsers (Netscape Navigator, Netscape Communicator or Microsoft Internet Explorer) is installed in your PC.

2.2.1 Software Requirements

- Windows 95/98/2000/NT/ME/XP
- Any other TCP/IP-enabled systems like Mac OS and UNIX
- Web Browser, such as Microsoft Internet Explorer (4.0 and above) or Netscape Navigator (4.0 and above)

2.2.2 Hardware Requirements

- 10/100/1000 Base-T, RJ45 MDIX crossover or MDI straight cable and Compex SXP2226WM unit

Chapter 3 Hardware Installation

Compex SXP2226WM can be installed as a desktop unit or mounted on a 19-inch rack. There are two types of installation for Compex SXP2226WM, one is to connect your PC directly to the management port. Alternatively, you can configure by linking the management port to one of the LAN ports and configure the switch through one of the ports. Detailed installation process will be listed as shown below.

3.1 Physical Setup for Compex SXP2226WM

Method #1 – Directly connected to the Management Port

Compex SXP2226WM is ideal for office usage, which can either be installed on a flat surface (desktop) or mounted on a 19-inch rack. The following steps illustrate a proper installation of Compex SXP2226WM.



Figure 3.1a Physical Setup for Compex SXP2226WM

3.1.1 Desktop installation

1. Unpack Compex SXP2226WM.
2. Place it near to a power outlet. Ensure that there is sufficient space for heat ventilation.
3. The surface to place Compex SXP2226WM should be clean, smooth, level and sturdy.
4. Ensure there is enough spacing around the unit to allow attachment of network cables.

5. Using a RJ45 MDIX crossover cable, connect one end to the management port of Compex SXP2226WM and the other end to the PC as shown in Figure 3.1a.
6. Next, insert the power cord into the socket located at the back of Compex SXP2226WM and power on the device.
7. Check that the POWER LED at the front panel of Compex SXP2226WM has lighted up.
8. The unit is now ready for configuration.
9. Please refer to Chapter 4 for details.

3.1.2 Rack-Mounted installation

1. Position one bracket to align with the holes on one side of Compex SXP2226WM and secure it with the smaller bracket screws (1/8-inch diameter). Then attach the other bracket to another side of it.
2. After attaching both mounting brackets, position the device in the rack by lining up the holes in the brackets with the appropriate holes on the rack. Secure it to the rack using the rack-mounting screws (5/16 inches diameters) with a screwdriver.
3. Using a RJ45 MDIX crossover cable, connect one end to the management port of Compex SXP2226WM and the other end to the PC as shown in Figure 3.1a.
4. Next, insert the power cord to the socket located at the back of Compex SXP2226WM and power on the device.
5. Check that the POWER LED at the front panel of Compex SXP2226WM has lighted up.
6. The unit is now ready for configuration.
7. Please refer to Chapter 4 to continue the configuration process.



NOTE

Please allow at least 4 inches of clearance on the front and back of the switch for proper ventilation. This is especially important for enclosed rack installation.

Method #2 – Connect from Management Port to LAN port

An alternative way to set up your Compex SXP2226WM is to connect the management port to one of the available LAN ports.



Figure 3.1b Another method of connection

Chapter 4 Software Installation

This chapter explains the basic set up procedures of configuring Compex SXP2226WM using the web-based interface.

4.1 Configuration on PC settings

Each PC in the LAN must be configured in order for them to communicate with Compex SXP2226WM. Please follow the steps as shown below:

1. From your Windows 95/98/2000/NT/ME/XP computer, click “**Start**” button, point to **Settings**, and select **Control Panel**.
2. Double click the **Network** icon.
3. Check to see if the TCP/IP protocol is installed. If not yet, please add this protocol first before proceeding with the next step.
4. Select **TCP/IP protocol** and click “**Properties**” button. Click on the radio button for **Specify an IP address** and key in the IP Address and Subnet Mask as 192.168.100.xxx and 255.255.255.0 respectively, where xxx can be any number from 1 to 254 except 128.
5. Go to **DNS Configuration** tab and select **Disable**.
6. Select **WINS Configuration** tab. Click **Disable WINS Resolution**.
7. Hit the “**Ok**” button and restart your computer.

4.2 Configuration of Compex SXP2226WM using Web-based Interface

Activate your Internet browser on your workstation which is connected onto the same network as Compex SXP2226WM. Enter the URL Address, <http://192.168.100.128>.

4.2.1 Login to Web Browser Interface

The following is a list of the various ways for different browsers in accessing a website. Follow the instructions for the browser that you use.

For Netscape Navigator

1. Select the **File** menu and click on **Open Location**.
2. In the **Open Location** dialog box, enter the IP address <http://192.168.100.128>. The switch default management IP address is set to 192.168.100.128.
3. Click on the “**Open**” button.

For Netscape Communicator

1. Select the **File** menu, and then press **Open Page**.
2. In the **Open Location** dialog box, enter the IP address <http://192.168.100.128>. The switch default management IP address is set to 192.168.100.128.
3. Ensure that the Navigator radio button is selected. Click on the “**Open**” button.

For Microsoft Internet Explorer

1. Select the **File** menu, then select **Open**.
2. In the **Open Location** dialog box, enter the IP address <http://192.168.100.128>. The switch default management IP address is set to 192.168.100.128.
3. Click on the “**OK**” button.

Next, the authentication page will appear as shown in Figure 4.2a. Type in the password and click on the “**Login**” button. The default password is not defined.

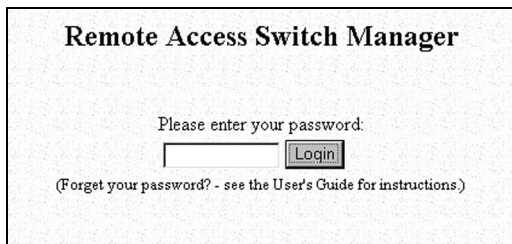


Figure 4.2a Login to Remote Access Switch Manager

The Main Page will display as shown in Figure 4.2b. The image of Complex SXP2226WM is shown on the upper right window. The status of each switch port (i.e. link, speed and duplex mode) can be seen clearly from the LED displays on the image. The lower right window is used to display the switch configuration.

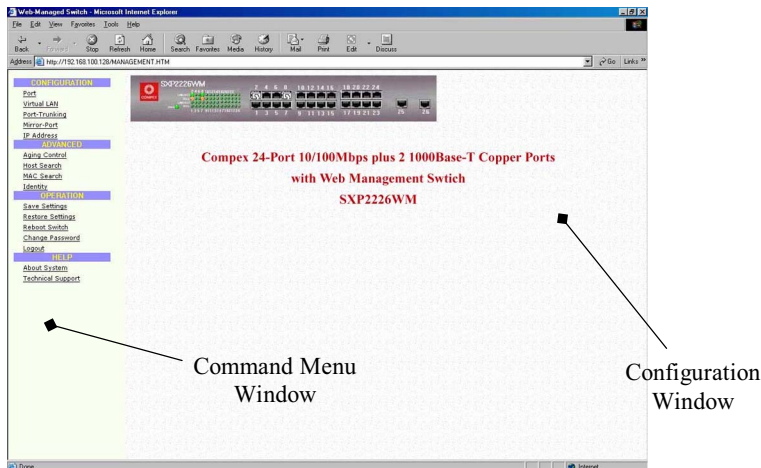


Figure 4.2b Main Page of Complex SXP2226WM

Chapter 4 Software Installation

The Main menu includes four sections in the Command Menu Window, namely **CONFIGURATION**, **ADVANCED**, **OPERATION** and **HELP**. The overall descriptions for individual sub-functions are listed as shown:

CONFIGURATION menu	Description	Reference in User's Manual
Port	Individual port configuration	Section 5.1
Virtual LAN	Virtual LAN setup	Section 5.2
Port-Trunking	Increase the bandwidth by cascading with another switch	Section 5.3
Mirror Control	Duplicate a port's traffic on to another port	Section 5.4
IP Address	Set different management IP addresses in separate IP Index.	Section 5.5

ADVANCED menu	Description	Reference in User's Manual
Aging Control	Limit the resource in the forwarding table	Section 6.1
Host Search	Search for the connected device in the network based on Host address	Section 6.2.1
Mac Address Search	Search for the connected device in the network based on MAC address	Section 6.2.2
Identity	Check/change the system name, location or contact of Compex SXP2226WM	Section 6.3

OPERATION menu	Description	Reference in User's Manual
Save Settings	Save all settings	Section 7.1.1
Restore Settings	Restore all settings to factory default	Section 7.1.2
Reboot Switch	Restart the device	Section 7.2
Change Password	Amend the password of system administrator	Section 7.3
Logout	Exit from the web-based interface environment	Section 7.4

HELP menu	Description	Reference in User's Manual
About System	List out all essential information in the system.	Section 8.1
Technical Support	Make enquiries when encounter problems while setting up the device	Section 8.2

Chapter 5

Configure Compex SXP2226WM using Web Interface

Compex SXP2226WM eases the configuration process with a user-friendly web-based interface. You can now simply complete the configuration process in just a few minutes. This chapter elaborates the configuration menu tool that comes with Compex SXP2226WM when you use the web-based configuration interface.

5.1

Port Configuration

This function allows you to have an easy access to the network via the ports of Compex SXP2226WM. In order to configure any of the port in Compex SXP2226WM, you need to select the port from the image. Simply use your mouse and click on any of the ports and the setting will appear as shown below.

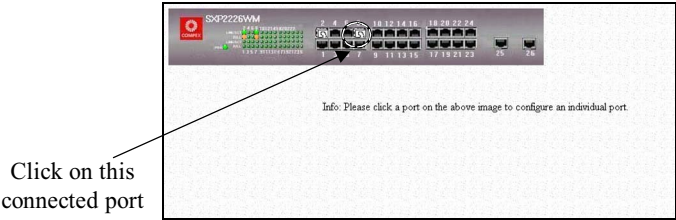


Figure 5.1a Choosing a port to configure

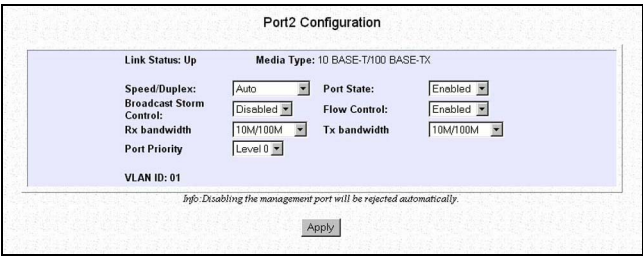


Figure 5.1b Configuration of the selected port

Notice that the “Link state” option indicates ‘Up’. This shows that the port is connected to the network. It can either be in “Up” (Connected) or ‘Down’ (No connection) state.

Speed/Duplex

To select the operation mode of the chosen port.

Port State

Enabling this function allows the chosen port to receive and forward the packets, and learn the respective source MAC Addresses.

Broadcast Storm Control

Enabling this function allows you to control the reception of broadcasting packets. When the number of broadcast packets in the input buffer of the chosen port is above the threshold (this is the value that you have chosen in the **Broadcast Storm Control** field), the new incoming broadcast packets will be discarded until the number is below the threshold.

Flow Control

Reports the Flow Control setting of the port. Enabling the Flow Control function allows Half and Full Duplex mode.

RX bandwidth

This option allows you to choose the bandwidth when receiving data.

TX bandwidth

This option allows you to choose the bandwidth when transmitting data.



NOTE

The port(s)* being activated with bandwidth control function must be forced (set) to 10Mbps HD or 100Mbps HD to work correctly.

If bandwidth control is operated in Full-Duplex mode, the true transmit bandwidth will be about 10-15 time less than the select value. This may varies with different applications.

*Only applies to the 24 10/100Mbps ports.

Port #25 and #26 do not support bandwidth control (RX bandwidth and TX bandwidth) function.

Port Priority

To specify the VLAN priority to expedite the VLAN traffic.

5.2 Virtual LAN Configuration

Virtual LAN is actually equated to a broadcast domain. In a VLAN, all end-stations communicate with each other as in a local LAN although they may be not on the same physical segment. However, all data packets in a VLAN are constrained, so different end stations in different VLANs cannot communicate with each other directly. Compex SXP2226WM supports port-based VLAN, i.e. the VLAN is specified by selecting a group of ports VLAN.

VLAN ID

01

Select

VLAN ID 1 Port Information

<input checked="" type="checkbox"/> Port 1	<input checked="" type="checkbox"/> Port 7	<input checked="" type="checkbox"/> Port 13	<input checked="" type="checkbox"/> Port 19	<input checked="" type="checkbox"/> Gigabit 1
<input checked="" type="checkbox"/> Port 2	<input checked="" type="checkbox"/> Port 8	<input checked="" type="checkbox"/> Port 14	<input checked="" type="checkbox"/> Port 20	<input checked="" type="checkbox"/> Gigabit 2
<input checked="" type="checkbox"/> Port 3	<input checked="" type="checkbox"/> Port 9	<input checked="" type="checkbox"/> Port 15	<input checked="" type="checkbox"/> Port 21	
<input checked="" type="checkbox"/> Port 4	<input checked="" type="checkbox"/> Port 10	<input checked="" type="checkbox"/> Port 16	<input checked="" type="checkbox"/> Port 22	
<input checked="" type="checkbox"/> Port 5	<input checked="" type="checkbox"/> Port 11	<input checked="" type="checkbox"/> Port 17	<input checked="" type="checkbox"/> Port 23	
<input checked="" type="checkbox"/> Port 6	<input checked="" type="checkbox"/> Port 12	<input checked="" type="checkbox"/> Port 18	<input checked="" type="checkbox"/> Port 24	

Info: Management port will be included in each VLAN automatically!

Apply

Figure 5.2a VLAN Configuration

VLAN ID

VLAN ID is the sequence number of a VLAN. You can set your VLAN ID up to 24.

5.2.1 Examples on Virtual LAN

Figure 5.2b illustrated the setup of Virtual LAN in a company. Notice that different subnet IP Addresses are assigned to individual departments.

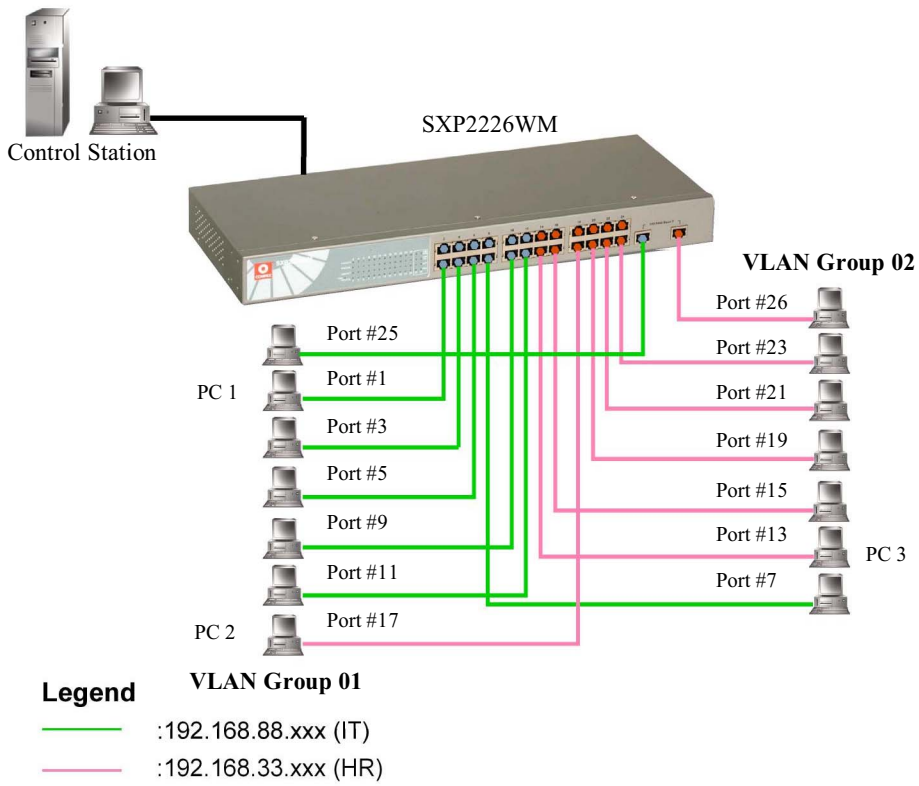


Figure 5.2b Simple set up of SXP2226WM for Virtual LAN

For example, PC 1 in the IT Department is using the subnet IP Address of 192.168.88.20. After configuring the Virtual LAN through the web interface of Compex SXP2226WM, PC 2, which is in the HR Department, is able to communicate with PC 1. However, PC 3 is not able to communicate with PC 1 even though it is in the same subnet (192.168.33.xxx) as PC 2.

To configure VLAN01,

1. Choose **VLAN ID** field as **01** and hit on “**Select**” button.
2. Choose Port **1, 5, 9** and **17** and click on the “**Apply**” button.

VLAN ID01Select

VLAN ID 1 Port Information

<input checked="" type="checkbox"/> Port 1	<input type="checkbox"/> Port 7	<input type="checkbox"/> Port 13	<input type="checkbox"/> Port 19	<input checked="" type="checkbox"/> Gigabit 1
<input type="checkbox"/> Port 2	<input type="checkbox"/> Port 8	<input type="checkbox"/> Port 14	<input type="checkbox"/> Port 20	<input type="checkbox"/> Gigabit 2
<input checked="" type="checkbox"/> Port 3	<input type="checkbox"/> Port 9	<input type="checkbox"/> Port 15	<input type="checkbox"/> Port 21	
<input type="checkbox"/> Port 4	<input type="checkbox"/> Port 10	<input type="checkbox"/> Port 16	<input type="checkbox"/> Port 22	
<input checked="" type="checkbox"/> Port 5	<input checked="" type="checkbox"/> Port 11	<input checked="" type="checkbox"/> Port 17	<input type="checkbox"/> Port 23	
<input type="checkbox"/> Port 6	<input type="checkbox"/> Port 12	<input type="checkbox"/> Port 18	<input type="checkbox"/> Port 24	

Info: Management port will be included in each VLAN automatically!

Apply

Figure 5.2c Settings for VLAN 01

For the configuration on VLAN02, please repeat the procedures shown in VLAN01.

VLAN ID02Select

VLAN ID 1 Port Information

<input type="checkbox"/> Port 1	<input checked="" type="checkbox"/> Port 7	<input checked="" type="checkbox"/> Port 13	<input checked="" type="checkbox"/> Port 19	<input type="checkbox"/> Gigabit 1
<input type="checkbox"/> Port 2	<input type="checkbox"/> Port 8	<input type="checkbox"/> Port 14	<input type="checkbox"/> Port 20	<input checked="" type="checkbox"/> Gigabit 2
<input type="checkbox"/> Port 3	<input type="checkbox"/> Port 9	<input checked="" type="checkbox"/> Port 15	<input checked="" type="checkbox"/> Port 21	
<input type="checkbox"/> Port 4	<input type="checkbox"/> Port 10	<input type="checkbox"/> Port 16	<input type="checkbox"/> Port 22	
<input type="checkbox"/> Port 5	<input type="checkbox"/> Port 11	<input type="checkbox"/> Port 17	<input checked="" type="checkbox"/> Port 23	
<input type="checkbox"/> Port 6	<input type="checkbox"/> Port 12	<input type="checkbox"/> Port 18	<input type="checkbox"/> Port 24	

Info: Management port will be included in each VLAN automatically!

Apply

Figure 5.2d Settings for VLAN 02

5.3

Expand the limitation on bandwidth

Port Trunking is the ability to group together several switch ports to increase the bandwidth between Compex SXP2226WM and other switch/es. This is an inexpensive method to increase throughput between switches. We define the Port Trunking as the ability to group a set of ports into a single logical link. The port trunk acts as single link between switches. It does not create a loop even though it is physically connected.

Compex SXP2226WM uses Port-based method for load balancing. Port-based method is to assign each port outside the trunk to a trunk port. For example, port A is assigned to trunk port B, then packets from port A destined to the trunk will be forwarded to port B. Please note that the assignment is done by management software, so user does not need to make the assignment manually.

Port-Trunking Setup

☐ Trunk 1

1,2

☐ Trunk 2

9,10

☐ Trunk 3

17,18

☐ Trunk 4

25,26

Apply

Figure 5.3a Port Trunking Setup

Trunk Group
Allow you to choose your preferred trunking group in an easy way.

From the Port-Trunking Setup, you can select more than one Trunking group for a switch unit.

5.3.1 Examples on Port Trunking

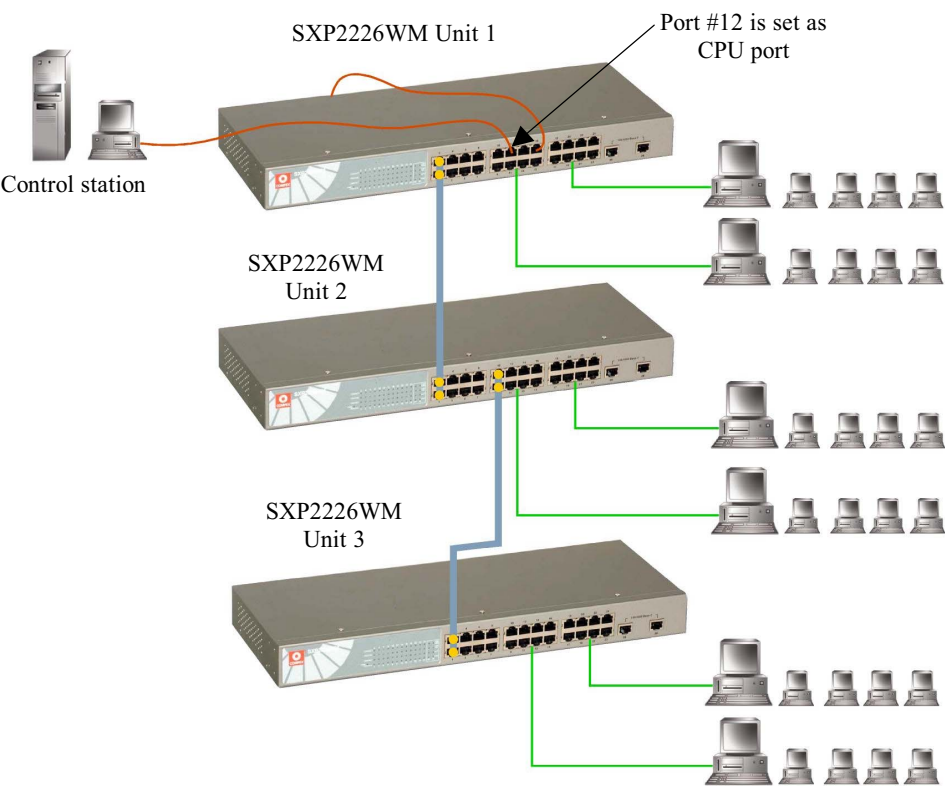


Figure 5.3b Physical Set up of Port Trunking

From Figure 5.3b, three CompeX SXP2226WM units are used to perform the trunking ability. For Units 1 and 3, Port #1 and #2 are selected as trunking ports, whereas for SXP2226WM Unit 2, Port #1, #2, #9 and #10 are being selected. Port #12 of Unit 1 is set as a CPU port. After selecting the respective trunking group for individual switches, all SXP2226WM units combined the bandwidth to increase the network speed.

To configure Port Trunking,

1. Choose the Trunking group for individual switch units as shown in Figure 5.3c and 5.3d.
2. Click on the “**Apply**” button and the Trunking function will get activated.

Port-Trunking Setup

☒ Trunk 1

1,2

☐ Trunk 2

9,10

☐ Trunk 3

17,18

☐ Trunk 4

25,26

Apply

Figure 5.3c Setting the Trunking ports for SXP2226WM Unit #1 and #3

Port-Trunking Setup

☒ Trunk 1

1,2

☒ Trunk 2

9,10

☐ Trunk 3

17,18

☐ Trunk 4

25,26

Apply

Figure 5.3d Setting the Trunking ports for SXP2226WM Unit #2



NOTE
Please note that if your CPU port is set to any of the ports involved in trunking configuration, you will not be able to activate the function. Instead, a message in the web interface will prompt you: **CPU port cannot be set in any Trunking.**

5.4

Mirror Control

This function allows you to set up a ‘mirror’ port of any specified port/s from 1 to 26, such that you can monitor the transmitted or received traffics of the monitored port/s without intervening them. You can then use a protocol analyzer to analyze the traffic for that port for any specific problem.

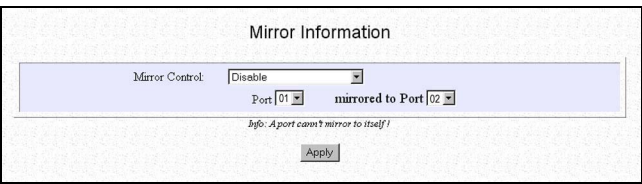


Figure 5.4a Mirror Status Setting

Mirror Control

To monitor traffic without intervening others.

5.4.1 Examples on Port Mirroring

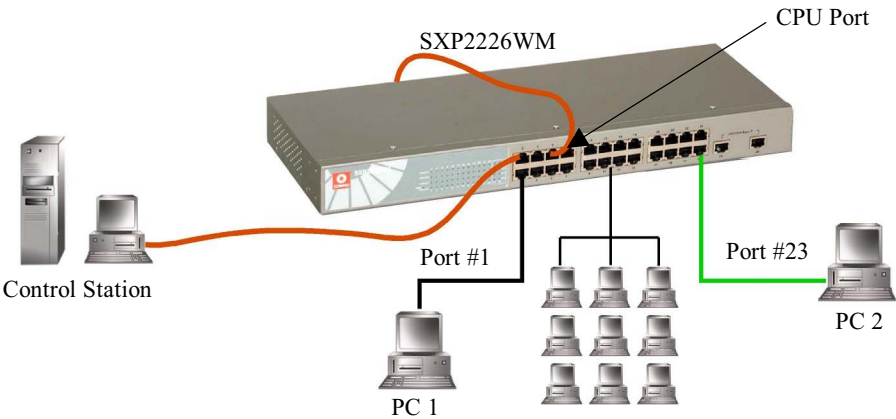
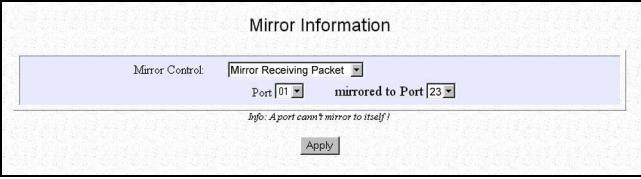


Figure 5.4b Port #23 acts as a mirror port

From the example shown in Figure 5.4b, Port #23 is set as a mirror port to monitor the traffic of Port #1. Data packets that are received at Port #1 will send a duplicate packet to Port #23. In this way, the traffic of Port #1 can be monitored through Port #23 (mirror port) without interfering the traffic in Port #1.



The screenshot shows a web interface titled "Mirror Information". It contains a form with the following elements:

- A label "Mirror Control:" followed by a dropdown menu set to "Mirror Receiving Packet".
- A label "Port" followed by a dropdown menu set to "01".
- A label "mirrored to Port" followed by a dropdown menu set to "23".
- A small informational message below the form: "Info: A port can't mirror to itself!".
- An "Apply" button at the bottom right of the form.

Figure 5.4c Setting Port #23 as a mirror port

To configure Port Mirroring,

1. Select **Mirror Receiving Packet** from the **Mirror Control** option.
2. Select Port **01** as the port which needs the mirror port to monitor.
3. Next choose Port **23** to be the mirror port and click on the "**Apply**" button.

5.5

Changing of IP Address

IP address configuration is for configuring IP address of the management board in the switch. It is likely that several VLANs are on the single switch, and each VLAN can be regarded as an independent network, so their network addresses may be different. In order that each end-station connected to switch can access the management system, multiple IP addresses are needed for the management board. The management board of Compex SXP2226WM can assign multiple IP addresses to a maximum of 8.

You may set and save your addresses in the individual IP Index with different addresses. This means that if your workstation is pre-configured as 192.168.100.200, you may set your Compex SXP2226WM as 192.168.100.xxx at any of the IP INDEX. Ensure that both your workstation and Compex SXP2226WM are in the same subnet.

IP Configuration

IP INDEX: 1

Select

IP Address1

192168100128

Subnet Mask1

2552552550

Gateway IP Address1

0000

Apply

Figure 5.5a Changing of IP Address

The options for individual parameters are shown below:

IP INDEX

A number to identify the IP Configuration.

IP Address #

An Internet Protocol (IP) address contains a full 4 bytes (32 bits) of data and can be subdivided into *classes*. The values of the leftmost four (4) bits of an address determine its class. The ‘#’ sign refers to the Index number chosen.

Subnet Mask#

Just like IP addresses, **Subnet Masks** contain four bytes (32 bits) and usually appear in the same "dotted decimal" notation. By default, Class C Subnet Mask 255.255.255.0 is set. Users may configure the network with Class A (255.0.0.0) and Class B (255.255.0.0) Subnet Mask as well. The ‘#’ sign refers to the Index number chosen.

Gateway IP Address #

Gateway is a generic term for an internetworking system that joins two networks together. It can be implemented completely in this web page. You can easily access to other workstations through this IP Address.

The following steps show how to change an IP Address:

1. Select an index from the **IP INDEX** field and click on “**Select**” button.
2. Enter the IP Address, Subnet Mask and Gateway IP Address in the respective field.
3. Click on “**Apply**” button to update the changes.

If you wish to enter another IP Address at the rest of the IP Index, repeat the above-mentioned steps.

6.1 Aging Control

Aging control is for controlling the retention period of address entries in the switch's forwarding table. If the aging control is enabled, a learned address entry (not include the static entry) will be removed from the forwarding table if there is no update within a pre-determined period (1~128 seconds). It is useful because the resource of the forwarding table is limited. Enabling the aging control will not influence packets forwarding. The data packet is forwarded to all other ports when the destination MAC address cannot be found in the forwarding table.

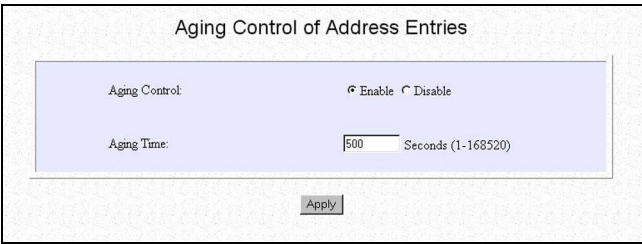


Figure 6.1a Address Entries for Aging Control

Aging Control
Number to identity the IP Configuration.

Aging Time
The **Actual aging time** = ____ **seconds** will varies accordingly to your entry.

6.2

Searching of Address

With the Host and MAC Search functions, you can simply check any of the IP addresses in the network for a particular workstation.

6.2.1

Host Search

Host Search is for searching a host by IP address on the network, and getting the port number to which the host is connected. It is useful while configuring the VLAN. With this function, you can easily detect the port at which a host is connected to, and have an idea about which ports should be included in a VLAN.

Host Search

Host IP Address

...

Search Result:

Figure 6.2a Searching of Host IP Address



NOTE
This Host Search function only applies to the setting up of SXP2226WM via LAN Port Please refer to details for **“Method #2 – Connect from Management Port to LAN port”** on Page 12.

6.2.2

MAC Address Search

This feature helps to look for the particular workstation with MAC Address stated in the field. This provides a useful way while configuring the VLAN. The system will search through the device for the port’s ownership of that particular PC.

MAC Address Search

MAC Address To Be Searched

Search Result:

Search

Figure 6.2b Searching of MAC Address

6.3

System Identity

Identity is for recording the identity and description of the switch. It is useful if there are several switches on the network. Key in related information and hit on the “Apply” button.

Management Switch Identity

System Name

System Contact

System Location

jxp2226wm

Apply

Figure 6.3a Management Switch Identity

Chapter 7 Using OPERATION Menu

7.1 Save and Restore Settings

7.1.1 To Save Settings

Save Settings is for storing the current settings and configurations of the switch. Once the switch is powered-up or rebooted, the saved configurations and settings will be loaded into the switch, so user does not need to reconfigure the switch again.

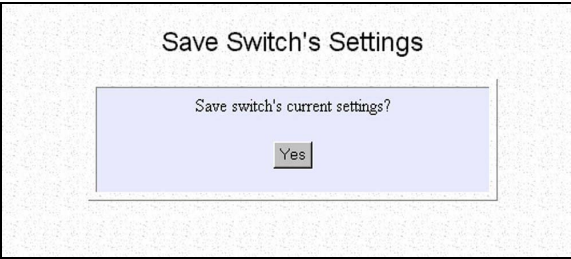


Figure 7.1a Save the settings

7.1.2 To Reset Settings

Reset Settings is for restoring to factory default settings. Current configurations, except password and identity, are replaced by vendor's default settings, then the switch is rebooted automatically. It is useful when user saves wrong configurations into the switch.

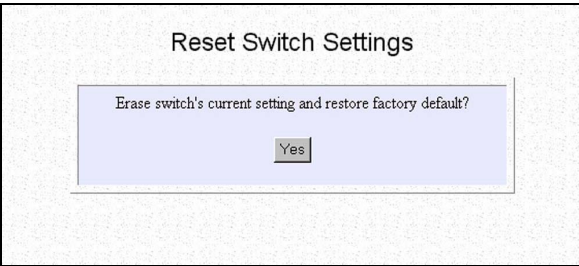


Figure 7.1b Reset all settings

7.2 Reboot Switch

Reboot Switch is for rebooting switch remotely. It is useful when user restore saved configurations.

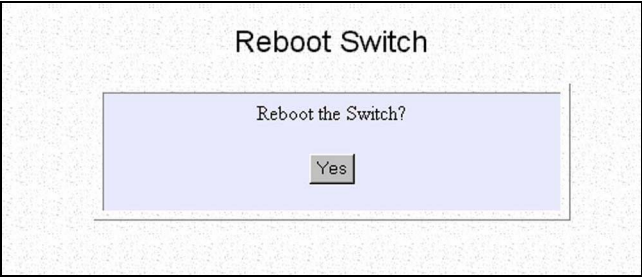


Figure 7.2a Reboot Compex SXP2226WM

7.3 Changing Password

This option allows the System Administrator to amend the current password.



Figure 7.3a Change Password

7.4 Logging out of Web Interface

Click the **logout** option from the **Configuration Menu** and the following screen will appear.

Hit the “**Continue**” button if you wish to login again, or else just click the “X” at the right top corner of the page to close this web management interface.

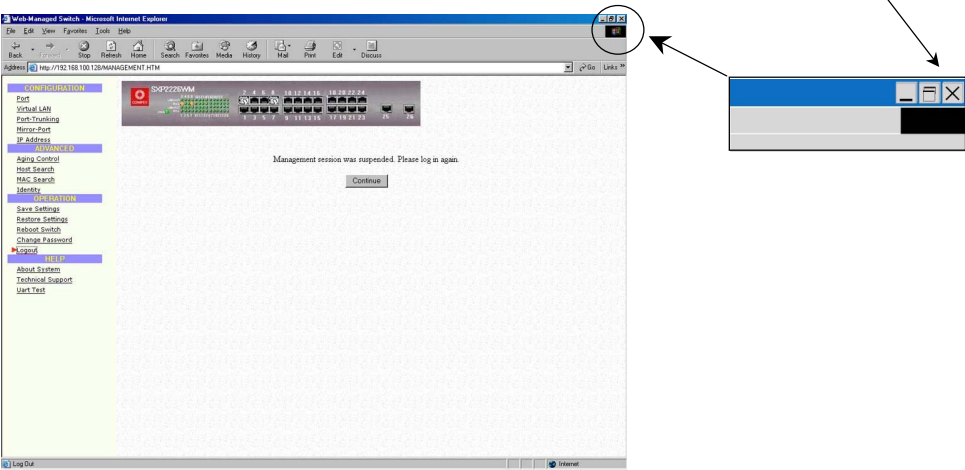


Figure 7.4a Logout

Chapter 8

Using HELP Menu

8.1

About System

This function displays the information about the management system of Complex SXP2226WM.

System Information	
Version, Release Date	Version 1.00, Nov 5, 2002
MAC Address	00-80-48-12-25-aa
IP Address	192.168.100.128
Subnet Mask	255.255.255.0
Gateway	0.0.0.0

Figure 8.1a Information on the System

8.2

Technical Support

This page displays information on technical support. You may refer to the respective technical group supported by Complex in the different countries as shown below.

Support Information	
Technical Support Centers	
Contact the technical support center that services your location.	
U.S.A., Canada, Latin America and South America	
Write	Complex, Inc. 4051 E. La Palma, Unit A Anaheim, CA 92807, USA
Call	Tel: (714) 630-7302 (8 a.m.-5 p.m. Pacific time)
Fax	Fax: (714) 630-6321
	BBS: (714) 630-2570 (24-hour access)
Europe	
Write	ReadyLINK Networktechnology GmbH Albert Einstein Strasse 34 / M21 63322 Rodermark, Germany
Call	Tel: ++49 (0) 6074-98017 (8 a.m.-5 p.m. local time)
Fax	Fax: ++49 (0) 6074-90668
	BBS: ++49 (0) 6074-93974 (24-hour access)
	Support Email: readylink@complex.com.sg
Asia, Australia, New Zealand, Middle East and the rest of the world	
Write	Complex Systems Pte Ltd 135, Joo Seng Road #08-01, PM Industrial Building Singapore 368363
Call	Tel: (65) 286-1805 (8 a.m.-5 p.m. local time)
Fax	Fax: (65) 283-8337
Internet access/Website:	support@complex.com.sg http://www.cpx.com or http://www.complex.com.sg

Figure 8.2a Technical Support Information

Chapter 9

Clearing Password and Restoring Default IP Address

If the password or IP address of Compex SXP2226WM is lost, or you probably wish to upgrade your management firmware, you can easily operate the DIP switch located in the front panel. There are 2 positions on the DIP switch which can compose to 4 states as shown in the table.



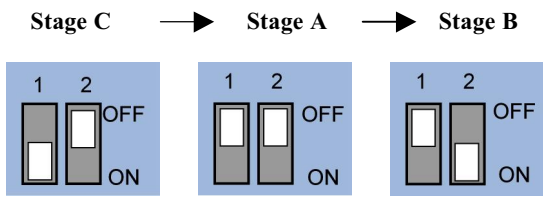
CAUTION
To enable any of the functions listed above, you should set your Compex SXP2226WM to **State D** while the switch is power-up or rebooted. If **State D** is not set while the power is turned on, these functions will not be activated.

Status		DIP Switch 1	DIP Switch 2
A		OFF	OFF
B		OFF	ON
C (Default)		ON	OFF
D		ON	ON

9.1

Clearing of Password

1. Power OFF your CompeX SXP2226WM.
2. Set your DIP Switch to **State D**.
3. Power ON your device and wait for about 1 minute to proceed.
4. Change the DIP Switch in the sequence stated below within 30 seconds:

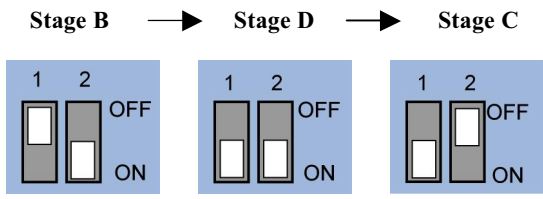


Now, the password has set to factory default – empty entry in the password field.

9.2

Restoring Default IP Address

1. Power OFF your CompeX SXP2226WM.
2. Set your DIP Switch to **State D**.
3. Power ON your device and wait for about 1 minute to proceed.
4. Change the DIP Switch in the sequence stated below within 30 seconds:

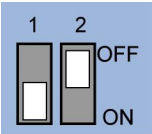
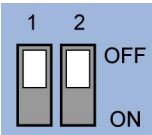


Now, the IP Address of CompeX SXP2226WM has set to factory default, which is 192.168.100.128.

Chapter 10 Upgrading New Firmware Configuration

To upgrade your management firmware, please follow the listed procedure.

- 1. Power OFF switch.
- 2. Set the DIP Switch 1 and 2 to UP position (OFF).
- 3. Power ON switch.
- 4. Then set DIP Switch 1 to DOWN position (ON) immediately.
- 5. From the PC, startup web browser and enter <http://192.168.100.128>.



NOTE
Other IP addresses are not supported.

In firmware upgrade mode, Compex SXP2226WM will default to 192.168.100.128.

The Upgrade Firmware page will appear.

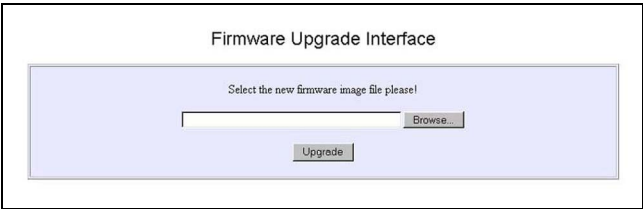


Figure 10.1a Firmware Upgrade Interface

- 6. Click the browser button to locate the firmware in the computer.
- 7. Or type in the drive, path and firmware filename.
- 8. Then click “**Upgrade**” button.

When firmware is uploaded and written successfully, a success message will display. Otherwise, a failed message will appear.